BINSTR

Statement:

Given an integer N, you need to find the number of binary strings of length N that can be formed such that they contain exactly two contiguous zeroes i.e, the string *00* should appear exactly once in the binary string of length N.

Print the answer modulo $10^9 + 7$.

Note : Binary strings are the strings consisting of only 0 and 1.

Input:

The first line of the input contains T, the number of test cases.

T lines follow each containing a single integer N.

Output:

For each test case, print the answer in a new line.

Constraints:

$1 \le T \le 10^5$

$1 \le N \le 10^6$

Sample Input:

```
2
2
3
```

Sample Output:

```
1
2
```